DOCUMENT RESUME

ED 461 141 CS 510 741

AUTHOR Campe, Brian; Frye, Kristin; Hood, Caitlin; Kuznekoff, Jeffrey; Parsons, Michael

TITLE The Correlation between the Communication of the Health Risks of Ecstasy (MDMA) and the Drug's Use among College Students.

PUB DATE 2001-11-00

NOTE 24p.; Paper presented at the Annual Meeting of the National Communication Association (87th, Atlanta, GA, November 1-4, 2001).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *College Students; *Drug Education; *Health Education; Higher Education; *Illegal Drug Use; Mass Media Effects; Mass Media Role; Media Research

IDENTIFIERS *Ecstasy (Drug)

ABSTRACT

The purpose of this study is to explore the relationship between college students and their awareness of the hazardous effects of the drug Ecstasy. Ecstasy use has risen among college students even though readily available research shows Ecstasy use having extremely hazardous effects on its users. Research also shows a lack of communication about these hazardous effects. However, little research exists about the connection between the increased use of Ecstasy and the lack of communication. From the research done, it is apparent that if there is an increase in communication, the likelihood of Ecstasy use declines. This study is based upon hypotheses regarding the communication of Ecstasy education, and finding the most effective medium for that communication. Results show that educating college students on the health hazards of Ecstasy will have little effect on their likelihood of future Ecstasy use. Most students have already made a decision regarding their use of Ecstasy. Based on the data, this study had limited success at determining which medium is more effective at communicating the health hazards of Ecstasy. (Contains 27 references. The survey instrument and an informational pamphlet are attached.) (Author/RS)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 461 141

Running head: ECSTASY EDUCATION

Student

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
J. Kuznekoff
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
1

The Correlation Between the Communication of the Health Risks of Ecstasy (MDMA) and the Drug's Use Among College Students

Brian Campe, Kristin Frye, Caitlin Hood, Jeffrey Kuznekoff, Michael Parsons

c/o Daniel Cochece Davis, Ph.D.
Marist College
3399 North Road, LT-213
Poughkeepsie, NY 12601-1387
(845) 575-3000, Ext. 2878
Cochece.Davis@Marist.edu

ABSTRACT: The Purpose of this study is to explore the connection between the communication of the hazardous effects of the drug Ecstasy and the drug's use among college students. This study is based upon hypotheses regarding the communication of Ecstasy education, and finding the most effective medium for that communication. Results show that educating college students on the health hazards of Ecstasy will have little effect on their likelihood of future Ecstasy use.

CS 510 741

BEST COPY AVAILABLE

The Correlation Between the Communication of the Health Risks of Ecstasy (MDMA) and the Drug's Use Among College Students

Abstract

The purpose of this study is to explore the relationship between college students and their awareness of the hazardous effects of the drug Ecstasy. Ecstasy use has risen among college students even though readily available research shows Ecstasy use having extremely hazardous effects on its users. Research also shows a lack of communication about these hazardous effects. However, little research exists about the connection between the increased use of Ecstasy and the lack of communication. From the research done, it is apparent that if there is an increase in communication, the likelihood of Ecstasy use declines. This study is based upon hypotheses regarding the communication of Ecstasy education, and finding the most effective medium for that communication. Results show that educating college students on the health hazards of Ecstasy will have little effect on their likelihood of future Ecstasy use. Most students have already made a decision regarding their use of Ecstasy. Based on the data, this study had limited success at determining which medium is more effective at communicating the health hazards of Ecstasy.

Introduction

Ecstasy is a psychoactive drug that stimulates production of the brain chemical serotonin. Although illegal in the Unites States, Ecstasy has become increasingly popular among young adults. There is an abundance of medical research linking Ecstasy to a wide range of serious health problems. Yet, while Ecstasy use is skyrocketing, few major drug-awareness programs even mention it by name. The lack of communication to users

of this drug has resulted in the myth that Ecstasy lacks severe health risks. This lack of communication has made Ecstasy more appealing to students who have been bombarded with the health risks of *other* drugs. The purpose of the present research is to show the correlation between more effective education about the health risks of Ecstasy and its declining attractiveness to college students. Consequently, this also establishes the most effective information medium. Solving this communication breach is important to a variety of groups who would like to better educate students on the risks of Ecstasy, such as police forces, health educators, public schools, and parents.

Literature Review

History

In the United States today, there is not enough education about the health risks of Ecstasy (MDMA). Due to the fact that Ecstasy has severe biological hazards, it is a wonder that the information detailing these hazards has not been made more available to its target population. MDMA (3, 4-Methylenedioxymethamphetamine), also known as Ecstasy, XTC, and several other names, was originally created in 1912 by a German corporation. Its original purpose was to function as an appetite suppressant. During the 1970s, the drug was used in psychotherapy by small group therapists in the United States, but was later banned in 1985 (White, Bochner, and Irvine, 1997). Ecstasy began to be used illegally in the late 1980s and early 90s. Currently the drug is very popular in metropolitan and suburban areas where the "rave" culture is booming (U.S. Department, 2000a).

MDMA Statistics

"MDMA is a Schedule I synthetic, psychoactive drug possessing stimulant and hallucinogenic properties. MDMA is taken orally, usually in tablet or capsule form, and its effects last approximately four to six hours" (U.S. Department, 2000a). "The usual recreational oral dose is 1-2 tablets (each containing about 60-120 mg of MDMA) a standard oral dose of 0.75-4.00 mg per kg in 60-80 kg people" (Boot, McGregor, and Hall, 2000, p. 1818). Pills of MDMA are consistently marked with recognizable symbols or brand logos, and are designed to appeal to a younger population (Drug Enforcement, 1999). Some markings include stars, clovers, and butterflies; some logos include the Mitsubishi symbol, the Apple computer symbol, or the Adidas symbol. The cost to produce one pill of MDMA ranges from $.50 to $2.00, while at street level the pill sells for $20-$30 (Drug Enforcement, 1999). However, prices as high as $50 have been reported in Miami (Drug Enforcement, 2000a).

Short Term Effects

Besides the original purpose of appetite suppressant, Ecstasy hosts several other short-term effects. The DEA refers to Ecstasy "as the 'Hug Drug' or 'Feel Good' drug, it reduces inhibitions and produces feelings of empathy for others, the elimination of anxiety, and extreme relaxation. In addition to chemical stimulation, the drug reportedly suppresses the need to eat, drink, or sleep. This enables club scene users to endure all-night and sometimes 2 to 3 day parties" (Drug Enforcement, 2000a, p. 2). Other less pleasurable short term effects of the drug can include nausea, hallucinations (a side effect of heat stroke) chills, sweating, tremors, muscle cramping, decreased appetite, fatigue, decreased libido, and blurred vision (Lampert, 2000). Characteristics of an overdose

include rapid heartbeat, high blood pressure, panic attacks, and possible seizures or unconsciousness (Drug Enforcement, 1999). There have also been reports of "vomiting, convulsions, and uncontrollable jaw clenching" (Bollman, 2000, p. B1). The most life threatening effect of MDMA is hyperthermia, or excessive body heat. In some cases, the core body temperature has ranged from 107 to 109 degrees Fahrenheit (Drug Enforcement, 2000a).

Long Term Effects

Even beyond the initial short-term effects of Ecstasy, there are severe long-term effects such as anxiety, paranoia, depression, and memory loss (Wilensky, 2000). These afflictions may be manifestations of damage to serotonin neurons that habitual MDMA users suffer (Drug Enforcement Administration, Intelligence Division, 1999). Other major types of MDMA effects are those relating to organ damage. Ecstasy has been shown to have serious effects, including scarring of the heart, muscular breakdown resulting in Kidney failure (Pope, 2000), acute hepatitis (Roques, Perney, Beaufort, Hanslick, Ramos, Durand, LeBlanc, 1998), and aortic dissection (Duflou & Mark, 2000).

There is also evidence that even light use of Ecstasy may impair intelligence ("Ecstasy use," 2000). In tests at the University of Wales, Ecstasy users showed significantly reduced intelligence capacity than non-drug users and habitual users of *other* illegal drugs (Morgan, 1999). Ecstasy has been shown to "produce large and possibly permanent damage to axons and axon terminal fibres containing 5hydroxytryptamine (5-HT, serotonin)" (Boot et al, 2000). This damage has been seen more than 7 years after the last use of MDMA. "Some regrowth of axons occurs, but this is abnormal and incomplete" (Boot et al, 2000).

Other Dangers

Many drug dealers, in an effort to reduce their costs and increase production on a drug whose market is ever expanding, have turned to lacing the pure MDMA with much cheaper and more dangerous additives. "You are becoming less and less likely to get what you think you're getting," said Mariellen Burns, a Boston Police Department spokeswoman (Bollman, 2000, p. B1). According to DanceSafe (as cited in Cloud, 2000), a non-profit organization that tests MDMA pills for other drugs, as much as 20% of pills sold at raves contain something other than MDMA, such as caffeine, aspirin, DXM, and PMA. DXM (Dextromethorphan) is a cough suppressant, but one pill of it could contain up to 13 times the dosage found in Robitussin. PMA (paramethoxyamphetamine) is a vastly more potent and dangerous hallucinogenic and hyperthermic drug than MDMA (Cloud, 2000) .

User Demographics

"Typically, users are young, Caucasian, and from a middle to upper socioeconomic group" (Schmidt, 1998, p. 1). Although the usual venues for Ecstasy continue to be raves, concerts, and clubs, its use in more suburban areas is increasing. It has also been "increasingly available through high school drug networks" (Drug Enforcement, 2000b, p. 2). "[Ecstasy] showed a sharp rise in use in 1999 among older teens. The increase occurred primarily in the Northeast and in large cities" (Johnston, O'Malley, and Bachman, 1999). While Ecstasy use is still at a much lower level than other drugs, it has "increased significantly - 800 percent - over a five year period" (Drug Enforcement, 1999, p. 3). One reason that Ecstasy increased in popularity among users is

because they "believed it to be safe and non-addictive in comparison to such 'hard' drugs as heroin and cocaine" (Drug Enforcement, 1999, p. 2).

MDMA Education and Anti-Drug Programs

According to Richard A. Fiano, Chief of Operations of the Drug Enforcement Agency, the greatest number of MDMA users fall into the 18-25 year old category (Fiano, 2000; Schmidt, 2000). Secretary of Health and Human Services Donna Shalala says that the current Federal anti-drug programs are targeted toward younger teen-agers, and that they need to shift their attention "to target 18- to 25-year-olds" (Hedges, 2000, p. A1). The most popular drug education program in the United States is Drug Abuse Resistance Education, or DARE. This program is in use in over 50% of school districts in the Nation, and yet studies show that after 10 years, this program has absolutely no lasting effect on students (Lynam, Milich, Zimmerman, Novak, Logan, Martin, Leukefeld, Clayton, 1999 & Cauchon, 1993). According to Mark Dillon, a DARE officer from Hanford, CA, the DARE curriculum doesn't even mention MDMA by name (Dillon, 1999).

Prevention Advertising

"There is no one message that will work for all purposes and in all communities" (The National Campaign to Prevent Teen Pregnancy, 1996, p. 99). The same message can be transferred through both pamphlet and video however the language of style is unique to each medium (Meryrowitz, 1998). "Production variables can be manipulated within each medium to alter perception of message content" (Meryrowitz, 1998, p. 98). It is important to understand why these variables affect the way the interpreters perceived the content and responded to it.

"Is anti-drug advertising effective? Not surprisingly, the answer is both yes and no" (Kouns & Danielson, 1998, p. 30). Advertising does provide a reminder to people every now and then about the hazards of drug use. "Kids seem to have been exposed to so much anti-drug advertising and other proselytizing that the overall message that 'drugs are a bad thing' has been ingrained into their psyches" (Kouns & Danielson, 1998, p. 30). Later in life, people remember these messages and tend to stay away from illegal drugs. To people that have never had anti-drug education from their parents, advertisements can have a large influence (Kouns & Danielson, 1998, p. 30).

Ads can be especially effective when targeted towards specific groups of teenagers. For example, teen athletes may be less likely to smoke cigarettes if they know that smoking can hinder their performance. In addition to targeting specific groups, advertisements have a positive impact on non-users. However, what advertising is lacking are real-life situations that teenagers can relate to. Teenagers today respond better to anti-drug messages placed in a real life situation. "They are interested in 'real' information, and want to be spoken to, not at" (Kouns & Danielson, 1998, p. 31). "Marketers often use real people with real situations to contribute some authenticity – and young people tend to be quite receptive to their message" (The Advertising Council, 2000). To have an effective anti-drug campaign, you must use realistic situations and direct, to-the-point information.

Hypotheses

H1: As communication of the health risks of Ecstasy increases the likelihood of college students to use the drug will decrease.

H2: A visual medium will be more effective at communicating the health risks of Ecstasy than a print medium.

Methodology

This study was conducted at a small liberal arts college in the northeastern United States. Data was collected through a survey (see Appendix A) using convenient sampling. Initial surveying began on Friday December 1, 2000 and continued on December 2, 2000 and December 3, 2000.

In all, 202 surveys were completed. Two surveys were discredited because of invalid information. Of the remaining 200 individuals, 101 were educated through watching a video and 99 through reading a pamphlet (See Appendix B). Both the video and pamphlet contained identical information. The survey consisted of two parts, one to be completed before Ecstasy education and the second to be completed after Ecstasy education.

Of the 101 individuals watching the video, approximately 32% were male, 64% were female, and 5% didn't respond. Of these individuals, 95% were Caucasian, 2% were African American, 2% were Asian, and 1% was other.

Of the 99 individuals reading the pamphlet, approximately 41% were male, 54% were female, and 5% didn't respond. Of these individuals, approximately 91% were Caucasian, 2% were Asian, 2% were Hispanic, 1% was Native American, and 2% were other.

Analysis

Analysis for this research was conducted using SPSS (Windows for PC 8.0) on a 350MHz IBM Aptiva PC Computer using an Intel Pentium Processor with MMX.

Results

Of the entire sample, the majority report getting an inadequate amount of information from formal sources (66.5%), and getting a moderate amount of information from their peers (68.3%). However, half of the sample felt that the information they received from their peers was only moderately accurate to not accurate at all. This indicates that while there is a decent amount of information available to college students, the majority of it comes from their peers, and is often inaccurate. In addition, users say they are receiving more accurate information from their peers than did non-users. However, when asked to list any risks of taking Ecstasy that they were aware of, 20% of users listed inaccurate health risks and an additional 21% said they weren't aware of any health risks. This indicates that many of the people who have chosen to use Ecstasy do so thinking they are fully aware of the health risks while actually being relatively uninformed. Of the people who haven't used Ecstasy, only 11% listed inaccurate information and 17% didn't know any health risks.

Before education, 80% of non-users said they were very unlikely to use Ecstasy in the future. However, after education, that number increased to 86%. After education, 25% of users said they would never use Ecstasy again. Unfortunately, 48% said they weren't against using it in the future. More importantly, for the nine non-users who indicated a probability of future Ecstasy use, education was extremely effective. After education, there were only four non-users who indicated a probability of future Ecstasy use, a 56% decrease. This shows that education had a significant effect on those who have not yet made their decision regarding Ecstasy use, but by this time most of the

participants have made a conscious decision regarding Ecstasy use, and are not being influenced by education.

Discussion

While the chosen media of print and video were each effective in decreasing the likeliness of future use of Ecstasy in the surveyed population, the print media proved to be twice as effective. The content of both the printed pamphlet and the video were identical and are, therefore, not a factor in interpreting this outcome. One explanation for this difference can be determined through an analysis of the production of each medium.

The variables that should be taken into consideration when analyzing the effectiveness of the pamphlet used in this study are the size, style and color of the type. Within the pamphlet used, the text was mainly black, but color was used sparingly for emphasis. The size and style of the font were also manipulated for this same reason. Manipulating these variables made the text more aesthetically pleasing to read, which in return held the attention of the participants longer than the viewers of the video did.

The amateur video produced for this study was a reiteration of the exact information that the pamphlet contained. The information was read aloud by a 20-year-old student. The aspect of the video that was most likely responsible for it not being as effective as the pamphlet was the lack of dynamic cinematography, as the video was a static shot of the student reading. Another contributing factor was the lack of individual cases and anecdotes. Without accounts of real experiences, the viewers remained skeptical about the information in the video because it held no relevance to their life experiences, so it was not as effective in holding the attention of the viewers as it could have been. While this variable could be significant in establishing more effective forms

of educating, our data is inconclusive. Therefore, this research cannot support either a written or a visual medium as superior to the other.

This study concludes that by the time students reach college, the vast majority have already made a decision regarding Ecstasy use. This is shown by the minimal change of non-users in the likelihood to use Ecstasy in the future. Once this decision has been made, further education has limited success at convincing current users to discontinue their use. This was proven because nearly half of ecstasy users indicated they are not against future Ecstasy use. However, for the few non-users who indicated a probability of future use, the education was extremely successful. Therefore, education needs to target a younger age group so they may be properly educated with accurate information before making their final decision. Currently, many students who choose to use Ecstasy make that decision based on information from their peers that is often inaccurate. The information found could be used by marketers of an ecstasy prevention campaign to establish the age of children to target and which medium to use.

Caveats

During the course of data collection and analysis process, several problems arose. Most important was the lack of pre and post education statistics for the user sample. As the question was worded, only the people who indicated that they had never used Ecstasy were asked to give their likelihood of future use before they were educated. A better method for the survey would have been to ask all participants how likely they were to use Ecstasy in the future before they were educated. This would have allowed for more effective determination of the impact the education had on the participant decision regarding future use of Ecstasy. This oversight made data analysis much more difficult.

Another factor was that the video used was not produced in a very effective manner. In fact, according to professional sources, the video was almost an example of what not to do. While the data in the video was exactly the same as in the pamphlet, it was conveyed in a far less engaging manner. The video used lacked professional quality production and planning. This created a lack of interest in the video by the participants and thus an inefficient medium for communicating the education. Research shows that a professionally created video that is well planned and effective at conveying its message is more likely to yield positive results. If the video had been more creative, dynamic, and captivating with real world situations, supported by factual information, students would have been more in-tuned and thus absorbed more information. The end result was that even though there was a difference between the pamphlet and the video, the video could not be used as a representation of real-world visual education.

In addition to the shortcomings of the video, the environment in which the education took place also had an effect. In most cases, the education took place in a student residence hall, a social and hectic environment, where the participants were in continuous interaction with others and were distracted from the education process. This factor could have also impacted the degree to which the education was absorbed by the participants. This environment is not conducive to effective education and is a reason why the education wasn't as successful as expected. Had this been in a classroom-like setting, where the participants were more focused on obtaining the education, the impact would have been more apparent. This leads us to believe that formal Ecstasy education could be very effective if properly conveyed.

Further Research

Further research could be done in many different areas, to continue with, and to improve upon, the results that were found. Further research could be done on middle school or high school populations to determine at what age decisions concerning the use of Ecstasy are being made. Since the data indicates that most college students have already made up their mind regarding Ecstasy, it would be helpful to know when this decision is made so that education can be targeted to children before the decision is made. With this information, parents and educators will be able to effectively influence the decision by previously educating their children.

Further research should also be conducted on the efficiencies of different media in conveying prevention methods. Due to the rapid increase of communication technology and bombardment of multiple media, youths are more skeptical of the messages they are receiving. The research needs to specify which medium is most effective in getting through to the youth of today.

References

Bollman, A. (2000, September 11). Ecstasy additives trouble activists pills laced to meet demand for club drug. Boston Globe, p. B1.

Boot, B., McGregor, I., & Hall, W. (2000). MDMA (Ecstasy) neurotoxicity: Assessing and communicating the risks. The Lancet, 355, 1818-1821.

Cauchon, D. (1993, October 11). D.A.R.E. doesn't work. USA Today, p. D1.

Cloud, J. (2000, June 5). The lure of Ecstasy. Time Magazine, 155, 23.

Dillon, M. (1999). The D.A.R.E. program. [Online]. Available: http://www/sayno.com/dareinfo.html.

Drug Enforcement Administration, Intelligence Division. (1999). Drug Intelligence Brief [Online]. Available: www.usdoj.gov/dea/pubs/intel/99019intellbrief.pdf.

Drug Enforcement Administation, Intelligence Division. (2000, February). Drug Intelligence Brief. [Online]. Available: http://www.usdoj.gov/dea/pubs/intel/20005intellbrief.pdf.

Duflou, J., & Mark, A., (2000). Aortic dissection after ingestion of "Ecstasy." American Journal of Forensic Medical Pathology, 3, 261-263.

Fiano, R. (2000, July 25). DEA Congressional Testimony. [Online]. Available: http://www.usdoj.gov/dea/pubs/cngrtest/ct072500.htm.

Hedges, M. (2000, September 1). Teen drug use down; college kids still at risk. Houston Chronicle, p. A1.

Johnston, L., O'Malley, P., & Bachman, J., (1999). Monitoring the future national results on adolescent drug use. U.S. Department of Health and Human Services, 1-3.

Kouns, T., & Danielson, R. (1998). Desperately seeking solutions. Bandweek, 39, 29-31.

Lampert, S. (2000, May). The agony of "Ecstasy." [Online]. Available: http://cbshealthwatch.medscape.com.

Lynam, D., Milich, R., Zimmerman, R., Novak, P., Logan, T., Martin, C., Leukefeld, C., & Clayton, R. (1999). Project DARE : No effects at 10-year follow up. Journal of Consulting and Clinical Psychology, 67, 590-593.

Meryrowitz, J. (1998) Multiple media literacy's. Journal of Communication, 48, 96-98.

Morgan, M. (1999). Memory deficits associated with recreational use of "Ecstasy" (MDMA). Psychopharmacology, 141(1), 30-36.

Pope, J. (2000, August 29). Party drug Ecstasy can ravage heart and brain. Times-Picayune, p. A10.

U.S. Department of Justice, Drug Enforcement Administration (2000a). MDMA (Ecstasy). [Online]. Available: http://usdoj.gov/dea/concern/mdma/mdma.htm.

U.S. Department of Justice, Drug Enforcement Administration. (2000b) 3,4-Methylenedioxymethamphetamine (MDMA, XTC, X, Ecstasy, Adam) [Online]. Available: http://www.usdoj.gov/dea/concern/mdma/mdma020700.htm.

Researchers: Ecstasy use may affect intelligence. (May 29, 2000). Alcoholism & Drug Abuse Weekly, 12, 8.

Roques, V., Perney, P., Beaufort, P., Hanslick, B., Ramos, J., Durand, L., & LeBlanc, F. (1998). Acute hepatitis due to Ecstasy. Presse Med, 27, 468-470.

Schmidt, G. (2000, July). ONDCP drug policy information clearinghouse fact sheet. [Online]. Available: http://www.whitehousedrugpolicy.gov.

Schmidt, G. (1998, February). Special report: "club" drug use. [Online]. Available: http://www.whitehousedrugpolicy.gov/drugfact/pulsechk/winter98/club.html.

The Advertising Council. (2000). Engaging the next generation: How non-profits can reach young adults. [Online]. Available: http://www.adcouncil.org.

The National Campaign to Prevent Teen Pregnancy. (1999). Get organized: a guide to preventing teen pregnancy [Online]. Available: http://aspe.hhs.gov/hsp/get-organized99/index.htm#contents.

White, J., Bochner, F., & Irvine, R., (1997). The agony of "Ecstasy": How can we avoid more "Ecstasy"-related deaths? Medical Journal of Australia, 166, 117.

Wilensky, A. (2000). Ecstasy. [Online]. Available: http://www.drdrew.com/publish/health/A709.html.

ECSTASY EDUCATION

Code # -_____

Ecstasy Knowledge Survey 1

This survey is an effort to gather research data on common knowledge about Ecstasy, and the health risks it involves. This survey is completely anonymous, and will be used for no other purpose than the one stated. Answering any and all of these questions is completely voluntary. If you have concerns about the survey, you can contact Dr. Daniel Cochece Davis, x2878. Thank you for your participation.

Age:_____ Sex (Circle one): Male / Female

Highest level of education completed: _____

Are you employed? (Circle one): yes no

Ethnicity (Circle one):

African-American Asian Caucasian Hispanic

Native American Other (Please specify _____)

1. Have you ever used banned substances (e.g. Marijuana, Heroin, Cocaine, LSD, etc.)?
yes no

2. Specifically, have you ever used Ecstasy? (Circle one): Yes No
If Yes, skip to question 5.

3. If no, why not?

_____

4. If no, how likely are you to try Ecstasy in the future?
1 2 3 4 5 6 7
Never Absolutely

5. If yes, how many times in the past year? _____

6. How much formal education (e.g. school or health class) have you received about Ecstasy?
1 2 3 4 5 6 7
None A Lot

7. How much education have you received about Ecstasy from your peers?
1 2 3 4 5 6 7
None A Lot

8. List any health risks associated with taking Ecstasy, that you are aware of.

ECSTASY EDUCATION

Code #_____

Ecstasy Knowledge Survey 2

This is a survey written by college students in an effort to gather research data on common knowledge about Ecstasy, and the health risks it involves. This survey is completely anonymous, and will be used for no other purpose than the one stated. Answering any and all of these questions is completely voluntary. Thank you for your participation.

1. How informed do you feel you were before being educated about the health risks of Ecstasy?

1	2	3	4	5	6	7
Not Informed						Very Informed

2. How accurate was the information you received from your peers, if any?

1	2	3	4	5	6	7
Not Accurate						Very Accurate

3. How likely are you to use Ecstasy in the future?

1	2	3	4	5	6	7
Never						Absolutely

Summary

Ecstasy has many hazardous effects that may not even surface until the aging process continues. Already testing has shown hazardous effects up to 7 years after initial testing. Further research is currently underway.

Group E

Research Strategies and Methods

Appendix B

Research Strategies and Methods

The Facts About Ecstasy

Health Hazards Short/Long Term Effects

- Every lab animal tested to date has shown side effects up to **7 years** after testing began.
- Ecstasy has been proven to cause **Brain Lesions**.
- **20%** of ecstasy pills are laced with other drugs such as LSD, and Ketamin (Special K).
- Some ER's have had cases where body temp has reached **110°F**.

History

3, 4 Methylenedioxymethamphetamine, more commonly known as Ecstasy was originally created in 1912 by a German chemical corporation. The original purpose of the drug was a appetite suppressant. During the 1970s, the drug was used for small group therapy. In the 1980s Ecstasy was made illegal in the United States.

Short Term Effects

Ecstasy causes a release of the brain transmitter Serotonin. Serotonin is responsible for **mood, sleep cycle, appetite, and maintaining body temperature**. Under the effects of ecstasy, users report feeling "close to others". In addition they also like to be touched or rubbed. This has led to the belief that Ecstasy is "a feel good drug."

BEST COPY AVAILABLE

Long Term Effects

After using ecstasy, the brain cells release the stored **Serotonin**. Once the effects of Ecstasy wear off, the nerve cells do not reabsorb the Serotonin. The cells then become **deformed or die off.** A person coming down off the effects of Ecstasy experiences a period of **Severe Depression**. This often lasts several days. In most cases nothing will help bring the subject out of this depression. In a recent study, the intelligence of drug users was tested. The group that had the **lowest IQ** scores, was the group that used only Ecstasy.

Research Strategies and